

Claims

What is claimed is:

1. An apparatus for managing business continuance operations from a host computer having a mass storage subsystem with business continuance features  
5 and at least two volumes, comprising a time maker function command processor executing in said host computer for parsing and implementing business continuance commands in order to transmit signals to and receive signals from said mass storage subsystem to activate said business continuance features without disrupting business application processing.
- 10 2. The apparatus of Claim 1, wherein said business continuance commands further comprise syntax to allow a user to identify standard volumes and business continuance volumes on said mass storage subsystem.
3. The apparatus of Claim 2, wherein said business continuance commands further  
15 comprise an establish command for causing said mass storage subsystem to join a specified standard volume and a specified business continuance volume into a business continuance pair by copying the contents of said standard volume onto said business continuance volume.
4. The apparatus of Claim 3, wherein said business continuance commands further

comprise a split command for causing said mass storage subsystem to separate said business continuance pair and flag writes to said standard volume and said business continuance volume which occur after said split.

5. The apparatus of Claim 4, wherein said business continuance commands further  
5 comprise a re-establish command for causing said mass storage subsystem to rejoin a standard volume and a business continuance volume which had once been a business continuance pair into a business continuance pair again, by copying to said business continuance volume said writes to said standard volume which had been flagged after said split and copying from said standard volume any data which had  
10 been changed by said writes to said business continuance volume which had been flagged after said split.

6. The apparatus of Claim 4, wherein said business continuance commands further comprise a restore command for causing said mass storage subsystem to copy the contents of a business continuance volume of a business continuance pair to a  
15 standard volume.

7. The apparatus of Claim 4, wherein said business continuance commands further comprise an incremental restore command for causing said mass storage subsystem to copy to said standard volume said writes to said business continuance volume

which have been flagged since said business continuance volume was split from said business continuance pair.

8. The apparatus of Claim 1, wherein said business continuance commands further comprise a query command for reporting on the status of business continuance  
5 volumes in said mass storage subsystem.
9. The apparatus of Claim 1, wherein said signals are inserted in a channel command word and sent by a startio instruction to said mass storage subsystem.
10. The apparatus of Claim 4, wherein said split command includes an optional volume serial number change parameter whereby the volume serial number of said  
10 business continuance volume can be changed after said split occurs.
11. The apparatus of Claim 1, wherein said business continuance commands include volume conditioning statements to place business continuance volumes in condition for other uses.
12. The apparatus of Claim 11, wherein said volume conditioning statements  
15 include a relabel statement for changing the label on a volume.

13. The apparatus of Claim 11, wherein said volume conditioning statements include a catalog statement for identifying a catalog to use for cataloging a data set on a volume.

14. The apparatus of Claim 11, wherein said volume conditioning statements  
5 include a process statement for selecting volumes on which to operate.

15. The apparatus of Claim 11, wherein said volume conditioning statements include a rename statement for renaming data sets.

16. The apparatus of Claim 11, wherein said volume conditioning statements  
include a simulate statement for simulating the effect of other volume conditioning  
10 statements without making actual changes.

17. The apparatus of Claim 1, wherein said business continuance commands include a userexit option for specifying the name of a user designated program to receive control when a business continuance command completes.

18. A method for managing business continuance operations from a host computer having a mass storage subsystem with business continuance features and at least two volumes, comprising the step of executing in said host computer a time maker function command processor for parsing and implementing business continuance  
5 commands in order to transmit signals to and receive signals from said mass storage subsystem to activate said business continuance features without disrupting business application processing.

19. The methods of Claim 18, wherein said step of parsing and implementing business continuance commands further comprises the step of parsing syntax to  
10 allow a user to identify standard volumes and business continuance volumes on said mass storage subsystem.

20. The method of Claim 19, wherein said step of parsing and implementing business continuance commands further comprises the step of implementing an establish command for causing said mass storage subsystem to join a specified  
15 standard volume and a specified business continuance volume into a business continuance pair by copying the contents of said standard volume onto said business continuance volume.

21. The method of Claim 20, wherein said step of parsing and implementing

business continuance commands further comprises the step of implementing a split command for causing said mass storage subsystem to separate said business continuance pair and flag writes to both volumes which occur after said split.

22. The method of Claim 21, wherein said step of parsing and implementing  
5 business continuance commands further comprises the step of implementing a re-establish command for causing said mass storage subsystem to rejoin a standard volume and a business continuance volume which had once been a business continuance pair into a business continuance pair again, by copying to said business continuance volume said writes to said standard volume which had been flagged  
10 after said split and copying from said standard volume any data which had been changed by said writes to said business continuance volume which had been flagged after said split.

23. The method of Claim 21, wherein said step of parsing and implementing  
business continuance commands further comprises the step of implementing a  
15 restore command for causing said mass storage subsystem to copy the contents of a business continuance volume of a business continuance pair to a standard volume.

24. The method of Claim 21, wherein said step of parsing and implementing  
business continuance commands further comprises the step of implementing an

incremental restore command for causing said mass storage subsystem to copy to said standard volume only the contents of said business continuance volume which have changed since said business continuance volume was split from said business continuance pair.

5 25. The method of Claim 18, wherein said step of parsing and implementing business continuance commands further comprises the step of implementing a query command for reporting on the status of business continuance volumes in said mass storage subsystem.

10 26. The method of Claim 18, wherein said step of parsing and implementing further comprises the step of inserting signals in a channel command word sent by a startio instruction to said mass storage subsystem.

15 27. The method of Claim 21, wherein said step of implementing said split command includes the step of implementing an optional volume serial number change parameter whereby the volume serial number of said business continuance volume can be changed after said split occurs.

28. The method of Claim 18, wherein said step of parsing and implementing business continuance commands includes the step of implementing volume

conditioning statements to place business continuance volumes in condition for other uses.

29. The method of Claim 28, wherein said step of implementing volume conditioning statements includes the step of implementing a relabel statement for  
5 changing the label on a volume.

30. The method of Claim 28, wherein said step of implementing volume conditioning statements includes the step of implementing a catalog statement for identifying a catalog to use for cataloging a data set on a volume.

31. The method of Claim 28, wherein said step of implementing volume  
10 conditioning statements includes the step of implementing a process statement for selecting volumes to be operated on.

32. The method of Claim 28, wherein said step of implementing volume conditioning statements includes the step of implementing a rename statement for renaming data sets.

15 33. The method of Claim 28, wherein said step of implementing volume conditioning statements includes the step of implementing a simulate statement for



simulating the effect of other volume conditioning statements without making actual changes.

34. The method of Claim 18, wherein said step of implementing business continuance commands includes the step of implementing a userexit option for specifying the name of a user designated program to receive control when a  
5 business continuance command completes.